

FAQ: Sites Reservoir Diversion

How much water could have been diverted into Sites Reservoir from this winter's storms if the reservoir existed today?

As of March 1, using simplified diversion criteria, **over 400 thousand acre-feet** (taf) could have been diverted to Sites Reservoir this water year, which began October 1, 2014. This is about 23% of the total capacity of Alternative C and 32% of Alternative A.

Our simplified diversion criteria makes two primary hydrologic condition checks:

1. Delta Status: if the Delta is in "excess" according to DWR's Operations Control Office.
2. Sacramento River Flow: if the flow of the Sacramento River at Freeport is greater than the required minimum.

If these and other criteria are met, then diversions would be possible. The above diversion criteria data are available online from DWR through CDEC and the Operations Control Office. This calculation assumes that all three conveyance options would be used, assuming Alternative A or C. Alternative B diversion would be reduced by the amount that could be diverted through Delevan Pipeline, about one third of the diversion capacity. The daily diversion capacities are:

Tehama-Colusa Canal	4,158 Acre-Feet/day
Glenn-Colusa Canal	3,564 Acre-Feet/day
Delevan Pipeline	<u>3,960 Acre-Feet/day</u>
Total Diversion to Sites	11,682 Acre-Feet/day

For the December 2014 storms, excess Delta conditions began December 9th and ended January 14th 2015. However, diversions would have been allowed only for the period through January 3rd, or 26 days. For reference, the last rainfall in Sacramento was December 24th and the last greater than 0.1 inch per day was December 19th. This result demonstrates that Sites Reservoir does not fill quickly during a storm, but does take advantage of the relatively long high flow conditions that occur for extended periods after storms. Similarly, with the February storms, excess conditions occurred in the Delta beginning on the 7th and continued through the remainder of the month. However, diversions would have been allowed only through the 23rd for a cumulative annual total diversion of 410 taf. Again, for reference, rain in Sacramento occurred from February 6th through 9th.

However, it is important to emphasize that the performance of Sites Reservoir during drought is not necessarily best measured by ability to divert during a drought period. As with most large storage systems, the drought performance is better determined by the amount of water in storage before a drought begins and then how quickly storage is depleted during the drought period. Performance during drought is described in "The Drought and Sites Reservoir" FAQ.